

### United States Patent and Trademark Office



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspio.gov

### NOTICE OF ALLOWANCE AND FEE(S) DUE

000038092

7590

10/25/2004

OFFICE OF COUNSEL, CODE 39
NAVAL SURFACE WARFARE CENTER, CARDEROCK DIVISION
9500 MACARTHUR BLVD.
WEST BETHESDA, MD 20817

EXAMINER

AVILA, STEPHEN P

ART UNIT

PAPER NUMBER

3617

DATE MAILED: 10/25/2004

1	APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
•	10/826,902	04/19/2004	Francis M. Mulhern	84,875	1748

TITLE OF INVENTION: GRAPPLE ANCHOR DEVICE FOR UNDERWATER TOWING OF WATERCRAFT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1370	\$0	\$1370	01/25/2005

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED</u>. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450

Alexandria, Virginia 22313-1450

O0003092 1590 (0252004   have its own certificate of mailing or Transmission OFFICE OF COUNSEL, CODE 39 NAVAL SURFACE WARFARE CENTER, CARDEROCK DIVISION 9500 MACARTHUR BLVD.  WEST BETHESDA, MD 20817   Letter of the control of the c				or <u>Fax</u>	(703) 746-4000			
CUREDITY CORRESTONDENCE ADDRESS of one tipe ment it to any change of saderess)  000018092 750 10230094  OFFICE OF COUNSEL, CODE 39  NAVAL SURFACE WARFARE CENTER, CARDEROCK DIVISION  9500 MACARTHUR BLVD.  WEST BETHESDA, MD 20817  APPLICATION NO. FILING DATE	INSTRUCTIONS: This for appropriate. All further cor indicated unless corrected by	m should be used for tran respondence including the l below or directed otherwise	smitting the ISSU Patent, advance on in Block 1, by (a)	E FEE and PUBLIC ders and notification ) specifying a new of	CATION FEE (if req of maintenance fees orrespondence addres	uired). Blocks 1 through 5 s will be mailed to the current s; and/or (b) indicating a sepa	hould be completed where correspondence address as trate "FEE ADDRESS" for	
OFFICE OF COUNSEL, CODE 39  NAVAL SURFACE WARFARE CENTER, CARDEROCK DIVISION 9500 MACARTHUR BLVD.  WEST BETHESDA, MD 20817  APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. (Dopenter name) (Signature)  APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. (DOPENTATION NO.)  10926-902 04/19/2504 Francis M. Mulbern 84,875 1748  TITLE OF INVENTION: GRAPPLE ANCHOR DEVICE FOR UNDERWATER TOWING OF WATERCRAFT  APPLY TYPE SMALL ENTITY ISSUE FRE PUBLICATION FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1370 \$0 \$1370 01/25/2005  EXAMINER ART UNIT CLASS-SUBCLASS  AVILA, STEPHEN P 3617  1. Change of correspondence address or indication of "Fee Address" of The Address of Implication for The Address' Indication (or "Fee Address" indication for The Address of Company in Address of Company			any change of address)		Note: A certificate o	of mailing can only be used for	or domestic mailings of the	
OFFICE OF COUNSEL, CODE 39  NAVAL SURFACE WARFARE CENTER, CARDEROCK DIVISION  9500 MACARTHUR BLVD.  WEST BETHESDA, MD 20817  APPLICATION NO. FILING DATE					Fee(s) Transmittal. T papers. Each addition	his certificate cannot be used a nal paper, such as an assignment	for any other accompanying	
NAVAL SURFACE WARFARE CENTER, CARDEROCK DIVISION 9500 MACARTHUR BLVD. WEST BETHESDA, MD 20817  APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO.  10726,902 04/19/2004 Framilited to the USPTO (703) 746-4000, on the date indicated below.  (Deposite name) (Deposite nam							•	
WEST BETHESDA, MD 20817    Component sunset   Component   C	NAVAL SURFAC DIVISION	E WARFARE CENTE	R, CARDERO	CK	I hereby certify that States Postal Service addressed to the Matransmitted to the US	ertificate of Mailing or Trans this Fee(s) Transmittal is bein with sufficient postage for fir ail Stop ISSUE FEE address PTO (703) 746-4000, on the c	mission g deposited with the United st class mail in an envelope above, or being facsimile late indicated below.	
APPLICATION NO.   FILING DATE   FIRST NAMED INVENTOR   ATTORNEY DOCKET NO.   CONFIRMATION NO.   10/226,902								
APPLICATION NO.   FILIND DATE   FIRST NAMED INVENTOR   ATTORNEY DOCKET NO.   CONFIRMATION NO.    10/826/902	WEST BETTIESE	1, 1110 20017					(Signature)	
10/826,902 04/19/2004 Francis M. Mulhern 84,875 1748  TITLE OF INVENTION: GRAPPLE ANCHOR DEVICE FOR UNDERWATER TOWING OF WATERCRAFT  APPLN. TYPE SMALL ENTITY ISSUE FEE PUBLICATION FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1370 \$0 \$1370 01/25/2005  EXAMINER ART UNIT CLASS-SUBCLASS  AVILA, STEPHEN P 3617 114-253000  1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).  Change of correspondence address (or Change of Correspondence Address from PTO/SB1/22) attached.  1. Change of correspondence address (or Change of Correspondence Address from PTO/SB1/22) attached.  1. Change of correspondence address (or Change of Correspondence Address from PTO/SB1/22) attached.  1. Change of correspondence address (or Change of Correspondence Address from PTO/SB1/22) attached.  2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents. If an exame of up to 2 registered patent attorneys or agents. If no name is 3 name of a single firm (having as an ember a 1 registered date names of up to 2 registered patent attorneys or agents. If no name is 3 name will be printed attorney or agents. If no name is 3 name will be printed attorney or agents. If no name is 3 name will be printed attorney or agents. If no name is 3 name will be printed attorney or agents. If no name is 3 name will be printed attorney or agents. If no name is 3 name will be printed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.  (A) NAME OF ASSIGNEE  (B) RESIDENCE: (CITY and STATE OR COUNTRY)  Please check the appropriate assignee category or categories (will not be printed on the patent): Individual Corporation or other private group entity Individual							(Date)	
APPLN: TYPE SMALL ENTITY ISSUE FEE PUBLICATION FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1370 \$0 \$1370 01/25/2005  EXAMINER ART UNIT CLASS-SUBCLASS  AVILA, STEPHEN P 3617 114-25/3000  1. Change of correspondence address or indication of "Fee Address" (37 CR 1.363).  Change of correspondence address or indication of "Fee Address" (37 CR 1.363).  Change of correspondence address or indication of "Fee Address" (37 CR 1.363).  Change of correspondence address or indication of "Fee Address" (37 CR 1.363).  Change of correspondence address or indication of "Fee Address" (37 CR 1.363).  Change of correspondence address or indication of or "Fee Address" (37 CR 1.363).  Change of correspondence address or indication of or "Fee Address" (37 CR 1.363).  Change of correspondence address or indication of or "Fee Address" (37 CR 1.363).  Change of correspondence address or indication of or "Fee Address" (37 CR 1.364).  Change of correspondence address or indication of "Fee Address" (37 CR 1.364).  Change of correspondence address or indication of "Fee Address" (37 CR 1.364).  Change of correspondence address or indication of "Fee Address" (37 CR 1.364).  Change of correspondence address or indication of "Fee Address" (37 CR 1.364).  Change of correspondence address or indication of "Fee Address" (37 CR 1.364).  Change of correspondence address or indication of "Fee Address" (37 CR 1.364).  Change of correspondence address or indication of "Fee Address" (37 CR 1.364).  Change of correspondence address or indication of "Fee Address" (37 CR 1.364).  Change of correspondence address or indication of "Fee Address" (37 CR 1.364).  Change of correspondence address or indication of "Fee Address" (37 CR 1.364).  Change of correspondence address or indication of "Fee Address" (37 CR 1.364).  Change of correspondence address or indication of "Fee Address" (37 CR 1.364).  Change of correspondence address or indication of "Fee Address" (37 CR 1.364).  Change of correspondence address or indication of "Fee Address" (37 CR 1.364).	APPLICATION NO.	FILING DATE	]	FIRST NAMED INVE	NTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
APPLN. TYPE SMALL ENTITY ISSUE FEE PUBLICATION FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1370 \$0 \$1370 01/25/2005    EXAMINER ART UNIT CLASS-SUBCLASS	10/826,902	04/19/2004		Francis M. Mulhe	ern	84,875	1748	
EXAMINER	APPLN. TYPE	SMALL ENTITY	ISSUE FI	EE P	UBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE	
AVILA, STEPHEN P 3617 114-253000  1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).    Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.   Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.   Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.   Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.   Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.   Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.   Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.   Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.   Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.   Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.   Change in Change of Correspondence address form PTO/SB/122 attached.   Change in Entity Status (from status indicated above)   Change of Correspondence address form Status indicated above)   Change in Entity Status (from status indicated above)   Change in Entity	nonprovisional	NO	\$1370	)	\$0	\$1370	01/25/2005	
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.563).    Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.   Tree Address form PTO/SB/122) attached. Use of a Customer PTO/SB/122) attached. Use of a Customer PTO/SB/122) attached. Use of a Customer PTO/SB/122 (2) the name of a single firm (having as a member a registered attorney or agents) and the names of up to 3 registered attorney or agents. If no name is 1 Street PTO/SB/122 (2) the name of a single firm (having as a member a registered attorney or agents. If no name is 1 Street PTO/SB/122 (2) the name of a single firm (having as a member a registered attorney or agents. If no name is 1 Street PTO/SB/122 (2) the name of a single firm (having as a member a registered attorney or agents. If no name is 1 Street PTO/SB/122 (2) the name of a single firm (having as a member a registered attorney or agents. If no name is 1 Street PTO/SB/122 (2) the name of a single firm (having as a member a registered attorney or agents. If no name is 1 Street PTO/SB/122 (2) the name of a single firm (having as a member a registered attorney or agents. If no name is 1 Street PTO/SB/122 (2) the name of a single firm (having as a member a registered attorney or agents. If no name is 1 Street PTO/SB/122 (2) the name of a single firm (having as a member a registered attorney or agents. If no name is 1 Street PTO/SB/122 (2) the name of a single firm (having as a member a registered attorney or agents. If no name is 1 Street PTO/SB/122 (2) the name of a single firm (having as a member a registered attorney or agents. If no name is 1 Street PTO/SB/122 (2) the name of a single firm (having as a member a registered attorney or agents. If no name is 1 Street PTO/SB/122 (2) the name of a single firm (having as a member a registered attorney or agents. If no name is 1 Street PTO/SB/122 (2) the name of up to 3 Street PTO/SB/122 (2) the name of up to 3 Street PTO/SB/122 (2) the name of up to 3 Street PTO/SB/122 (2) the n	EXAM	IINER	ART UN	т с	LASS-SUBCLASS	7		
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.163).    Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.   Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.   Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.   Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.   Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.   Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.   Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.   Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.   Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.   Change of correspondence address (or Change of Correspondence address form PTO/SB/122) attached.   Change of correspondence address (or Change of Correspondence address form PTO/SB/122) attached.   Change of correspondence address (or Change of Correspondence address form PTO/SB/122) attached.   Change of correspondence address for Change of Correspondence and PTO/SB/1222 attached.   Change of Correspondence address for Change of Correspondence and Pto Corporation of Corporation as set forth in 37 CFR 1.21(g)(2).   Change in Entity Status (from status indicated above)   Change of Corporation of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.   Change in Entity Status (from status indicated above)   Change of the United States Patent and Trademark Office.   Change in Entity Status (From SmALL ENTITY status See 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process)   Chan	L		3617			ب		
CFR 1.363).  Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  Change of correspondence address (ndication form PTO/SB/122) attached.  Change of correspondence address (ndication form PTO/SB/12) attached.  Change of correspondence address (ndication form pto a substitute of a single firm (having as a member a registered attached. Use of a Customer Number is a single firm (having as a member a registered patent attorneys or agents. If no name is 13.  Change in Entity of Change in Entity discount permitted)  Change in Entity Status (from status indicated above)  Advance Order - # of Copies			ee Address" (37	2. For printing on	the patent front page,	list		
Address form PTO/SB/12) attached.    "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.    "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.    "Stage of the Company of the Company of the Customer Number is required at the customer of the Customer Number is required at the customer of the Customer Number is required to a customer number of the Customer number is required to a customer number of the Customer number is required to a customer number of the Customer numbe	CFR 1.363).			(1) the names of up to 3 registered patent attorneys				
"Fee Address" indication (or "Fee Address" Indication form PTO/SB/17, Rev 03-02 or more recent) attached. Use of a Customer Number is required.  3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.  (A) NAME OF ASSIGNEE  (B) RESIDENCE: (CITY and STATE OR COUNTRY)  Please check the appropriate assignee category or categories (will not be printed on the patent):   Individual   Corporation or other private group entity   Government 4a. The following fee(s) are enclosed:   4b. Payment of Fee(s):   A check in the amount of the fee(s) is enclosed.   Payment of Fee(s):   Payment of Fee(s):   Payment by credit card. Form PTO-2038 is attached.   Payment by credit card. Form PTO-2038 is attached.   The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number   Cenclose an extra copy of this form).  5. Change in Entity Status (from status indicated above)   A Applicant claims SMALL ENTITY status. See 37 CFR 1.27.   b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).  The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other parry in interest as shown by the records of the United States Patent and Trademark Office.  Date	Address form PTO/SB/1:	lence address (or Change of 22) attached.	Correspondence	2				
PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.  (A) NAME OF ASSIGNEE  (B) RESIDENCE: (CITY and STATE OR COUNTRY)  Please check the appropriate assignee category or categories (will not be printed on the patent):   Individual   Corporation or other private group entity   Government    4a. The following fee(s) are enclosed:   4b. Payment of Fee(s):   A check in the amount of the fee(s) is enclosed.   Payment by credit card. Form PTO-2038 is attached.   Payment by credit card. Form PTO-2038 is attached.   The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number   (enclose an extra copy of this form).  5. Change in Entity Status (from status indicated above)   A applicant claims SMALL ENTITY status. See 37 CFR 1.27.   D b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).  The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party ir interest as shown by the records of the United States Patent and Trademark Office.  Authorized Signature   Date	"Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer			registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is 3				
Please check the appropriate assignee category or categories (will not be printed on the patent): Individual Corporation or other private group entity Government  4a. The following fee(s) are enclosed:    Issue Fee   A check in the amount of the fee(s) is enclosed.   Publication Fee (No small entity discount permitted) Payment by credit card. Form PTO-2038 is attached.   Advance Order - # of Copies   The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).  5. Change in Entity Status (from status indicated above)   a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.   b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).  The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.  Authorized Signature	3. ASSIGNEE NAME AND	RESIDENCE DATA TO E	E PRINTED ON T	THE PATENT (print	or type)			
Please check the appropriate assignee category or categories (will not be printed on the patent):	PLEASE NOTE: Unless recordation as set forth in	an assignee is identified by 37 CFR 3.11. Completion	elow, no assignee of this form is NO	data will appear on T a substitute for filit	the patent. If an assing an assignment.	gnee is identified below, the	document has been filed for	
Please check the appropriate assignee category or categories (will not be printed on the patent):	(A) NAME OF ASSIGN	EE	(B	B) RESIDENCE: (CI	TY and STATE OR C	OUNTRY)		
4a. The following fee(s) are enclosed:    Acheck in the amount of the fee(s) is enclosed.   Publication Fee (No small entity discount permitted)   Acheck in the amount of the fee(s) is enclosed.   Payment by credit card. Form PTO-2038 is attached.   Acheck in the amount of the fee(s) is enclosed.   Payment by credit card. Form PTO-2038 is attached.   The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).  5. Change in Entity Status (from status indicated above)   a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.   b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).  The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.  NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.  Authorized Signature			•	,				
4a. The following fee(s) are enclosed:    Acheck in the amount of the fee(s) is enclosed.   Publication Fee (No small entity discount permitted)   Acheck in the amount of the fee(s) is enclosed.   Payment by credit card. Form PTO-2038 is attached.   Acheck in the amount of the fee(s) is enclosed.   Payment by credit card. Form PTO-2038 is attached.   The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).  5. Change in Entity Status (from status indicated above)   a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.   b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).  The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.  NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.  Authorized Signature								
□ Issue Fee □ A check in the amount of the fee(s) is enclosed. □ Publication Fee (No small entity discount permitted) □ Payment by credit card. Form PTO-2038 is attached. □ Advance Order - # of Copies □ □ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number □ (enclose an extra copy of this form).  5. Change in Entity Status (from status indicated above) □ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. □ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).  The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.  NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.  Authorized Signature □ Date □ Registration No. □ Registration No. □ This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process)						Corporation or other private gr	oup entity Government	
Publication Fee (No small entity discount permitted)  Advance Order - # of Copies		enclosed:	41	_'				
Advance Order - # of Copies								
Deposit Account Number								
a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.  b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).  The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.  NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.  Authorized Signature	Deposit Account Number(enclose an extra copy of this form).					copy of this form).		
The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.  NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.  Authorized Signature	_				- la la imira CM	ALL ENTITY status Can 27 (	SED 1.27(~)(2)	
Authorized Signature Date  Typed or printed name Registration No  This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process)								
Typed or printed name Registration No  This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process)	NOTE: The Issue Fee and Finterest as shown by the rec	Publication Fee (if required) ords of the United States Pat	will not be accepte ent and Trademark	d from anyone other Office.	than the applicant; a re	egistered attorney or agent; or	the assignee or other party in	
Typed or printed name Registration No  This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process)	Authorized Signature Date							
This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process)								
	This collection of informati	on is required by 37 CFR 1.3	11. The information	on is required to obta	in or retain a benefit b	v the public which is to file (ar	nd by the USPTO to process)	

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USP1O to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,902	04/19/2004	Francis M. Mulhern	84,875	1748
000038092 7	590 10/25/2004		EXAM	INER
OFFICE OF CO	UNSEL, CODE 39	AVILA, STEPHEN P		
NAVAL SURFAC	E WARFARE CENTE	CR, CARDEROCK		· · <u></u>
DIVISION		•	ART UNIT	PAPER NUMBER
9500 MACARTHI	JR BLVD.		3617	
WEST BETHESDA, MD 20817			DATE MAILED: 10/25/200	4

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,902	04/19/2004	Francis M. Mulhern	84,875	1748
000038092 7	590 10/25/2004		EXAMI	INER
	UNSEL, CODE 39		AVILA, ST	EPHEN P
NAVAL SURFAC	E WARFARE CENTE	ER, CARDEROCK	ART UNIT	PAPER NUMBER
9500 MACARTHI	UR BLVD.		3617	
WEST BETHESD	A, MD 20817		DATE MAILED: 10/25/2004	4

### Notice of Fee Increase on October 1, 2004

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after October 1, 2004, then the amount due will be higher than that set forth in the "Notice of Allowance and Fee(s) Due" because some fees will increase effective October 1, 2004. See Revision of Patent Fees for Fiscal Year 2005; Final Rule, 69 Fed. Reg. 52604, 52606 (May 10, 2004).

The current fee schedule is accessible from WEB site (http://www.uspto.gov/main/howtofees.htm).

If the fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due" but not the correct amount in view of the fee increase, a "Notice of Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice of Pay Balance of Issue Fee," if the response to the Notice of Allowance is to be filed on or after October 1, 2004 (or mailed with a certificate of mailing on or after October 1, 2004), the issue fee paid should be the fee that is required at the time the fee is paid. See Manual of Patent Examining Procedure (MPEP), Section 1306 (Eighth Edition, Rev. 2, May 2004). If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously-paid issue fee should be paid. See MPEP Section 1308.01.

Effective October 1, 2004, 37 CFR 1.18 is amended by revising paragraphs (a) through (c) to read as set forth below.

Section 1.18 Patent post allowance (including issue) fees.

(a) Issue fee for issuing each original or reissue patent, except a design or plant patent:

CAC	cept a design of plant patent.	
	By a small entity (Sec. 1.27(a))	\$685.00
	By other than a small entity\$	1,370.00
(b)	Issue fee for issuing a design patent:	
	By a small entity (Sec. 1.27(a))	\$245.00
	By other than a small entity	\$490.00
(c)	Issue fee for issuing a plant patent:	
	By a small entity (Sec. 1.27(a))	\$330.00
	By other than a small entity	\$660.00

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.